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Abstract

This study investigated past-year gambling involvement (i.e., frequency and breadth) among employees at MGM Resorts International (MGM) and their views on the effectiveness of MGM's responsible gambling (RG) program (i.e., GameSense). It also examined associations between these views and employees' gambling behavior, as well as their demographic and work-related characteristics. We used cross-sectional data drawn from a broader research project, which surveyed a large sample of MGM employees ($n = 814$) in 2020. Our analysis revealed that gambling frequency varied by ethnicity, department affiliations, and property location, while gambling breadth differed based on gender and department affiliations. We employed hierarchical multiple regression analysis to identify the factors that predicted perceived RG program effectiveness. This study identified four significant predictors of employees' perceptions regarding the effectiveness of RG programs: (1) Asian ethnicity, (2) department affiliation (high or low contact with gamblers), (3) the location of their workplace (Las Vegas or elsewhere), and (4) tenure in the gaming industry in years. Employees identifying as Asian, those with longer industry tenure, or those working in high-contact departments or at non-Las Vegas properties tended to view the RG programs as more effective. These findings highlight the importance of developing RG training strategies tailored to the diverse backgrounds of employees and can be applied to enhance RG programming at land-based casinos.

Keywords: responsible gambling, casino employees, gambling involvement, gambling frequency, breadth involvement

Introduction

In 2017, MGM Resorts International (MGM) implemented a new, branded responsible gambling (RG) program, GameSense[®]. On casino properties, RG programs such as GameSense include a variety of tools aimed at helping patrons manage their gambling behaviors with products such as education programs, warning messages, player behavior tracking, and self-exclusion systems (GameSense, 2022; Ladouceur et al., 2016). Casinos typically offer RG programs and tools in an effort to reduce the possible harms associated with problem gambling (Gray et al., 2021). GameSense generally offers more customer-facing content and education components than MGM's previous RG program and integrates employees more fully into content delivery to players (Abarbanel et al., 2021a).

Unlike a compliance-based program that trains employees annually with regard to recognizing problem gambling behavior, GameSense aims to enhance both employees' RG knowledge and customer outreach via positive and proactive conversations regarding players' healthy gambling habits (Abarbanel et al., 2021b). Once casino employees have received the highest level of training, they are designated as 'GameSense Advisors' (MGM Resorts International, 2022). GameSense Advisors educate patrons about gambling concepts, recognize potential warning signs of problem gambling, provide one-on-one assistance to casino patrons in need of assistance, and in some instances, help connect patrons to problem gambling assistance programs. In focus groups of MGM employees, some GameSense Advisors reported feeling more confident in interacting with patrons, and they perceived the content to be interesting and helpful (Abarbanel et al., 2018). For example, one employee mentioned that 'it's easier for us to have that conversation with the guest about RG because we have that tool right in front of us' (Abarbanel et al., 2018, p. 11).

The active involvement of employees is essential for the success of an RG program. This was highlighted in a systematic review by Riley et al. (2024), which examined the role played by land-based gambling venue staff in mitigating problem gambling harms and encouraging help-seeking behaviors. From one perspective, casino employees are often seen by gamblers as key players in addressing problem gambling issues. Hing (2005) found that some gamblers expect more proactive interventions from staff, such as notifying players who spend excessive time on a machine, suggesting breaks or limits on gambling duration, and initiating discussions about their gambling habits. On the other hand, employees themselves recognize the importance of RG programs. Song et al. (2015) found that the anticipated implementation of RG strategies was seen to positively impact customer relations, essentially improving employee attitudes toward patrons. In addition, a study conducted in Macao revealed that gambling companies that invest in staff training were viewed favorably for employee attraction and retention (Leung & Snell, 2017). Similarly, Manian et al. (2023) reported that most casino employees advocated for programs that educate gamblers and protect them from the potential harms of gambling.

Recognizing the critical role of employees, existing literature has examined their perceptions of the effectiveness of RG programs. The findings indicated that casino employees hold varying views about the effectiveness of RG training (Breen et al., 2006; Hing, 2003; Tong et al., 2018). For instance, some casino employees in Macao perceived their RG training as superficial and insufficient (Tong et al., 2018), while some Australian casino employees perceived training as beneficial for understanding at-risk gambling behaviors (Breen et al., 2006). Previous research has established that casino employees' gambling behaviors may influence their views of RG programs, though only a few studies have explored these relationships. In a notable study, researchers surveyed 492 employees at the Plainridge Park Casino in Massachusetts about their gambling involvement, as well as engagement with—and opinions and knowledge of—the GameSense information center and its staff (Gray et al., 2021). Among their key findings, approximately 80% of the surveyed casino employees reported past-year gambling. The authors found that casino employees who gambled more often endorsed fewer positive opinions about their GameSense program, whereas gambling frequency was unrelated to negative opinions of their GameSense program. At this particular casino, employees' gambling breadth (i.e., the number

of different games they played) was unrelated to both their positive and negative GameSense attitudes. However, to our knowledge, this relationship has not been explored among employees at any other casino locations. Employee perspectives and gambling behaviors likely vary across geographic regions and venue contexts. This variation is particularly relevant for companies like MGM that operate across multiple jurisdictions with different gambling cultures and histories. For instance, in mature markets such as Las Vegas, where gambling is deeply integrated into the local culture and economy, employees may have different exposure to and experiences with gambling compared to those in markets where casino gambling was more recently legalized. These regional differences might shape not only employees' own gambling behaviors but also their views on RG programs. Therefore, replicating and extending Gray et al.'s (2021) study across multiple casino properties could enhance our understanding of how diverse operational environments might relate to employees' gambling behaviors and perceptions of RG programs.

The Present Study

Over the past two decades, a large body of research has examined the relationships between gambling involvement, and demographic characteristics and mental health outcomes in the U.S. (see Loo et al., 2019 for a review). Although many studies have examined protective and risk factors associated with gambling involvement among U.S. adults (Hearn et al., 2021; Marshall, 2005; Welte et al., 2011), less is known about gambling involvement among U.S. casino employees. Previous studies have identified casino employees as an 'at-risk' group for developing problems with gambling relative to the general population (Guttentag et al., 2012; Hing & Gainsbury, 2013; Shaffer et al., 1999; Shaffer & Hall, 2002; Wong & Lam, 2013). While there has been some exploration into gambling behaviors among these employees, researchers have highlighted the need for more in-depth studies focusing on this high-risk group (Abarbanel et al., 2019, 2021a, b; Guttentag et al., 2012; Wong & Lam, 2013). This study aimed to fill this gap by investigating the gambling behaviors among a large sample of MGM Resort employees in the U.S., with a particular emphasis on two key dimensions: the frequency and breadth of gambling involvement. Here, 'breadth' refers to the variety of games engaged in (LaPlante et al., 2014). A substantial body of prior work has utilized these measures to examine gambling behaviors among the general population, casino customers, and internet gambling samples (LaPlante et al., 2013, 2014; Mazar et al., 2020; Nelson et al., 2018; Philander et al., 2022), but the use of these dimensions to analyzing the gambling patterns of casino employees remains a relatively unexplored area. Building upon prior work, this study also examined whether employees' gambling involvement (i.e., frequency and breadth) is associated with a variety of workplace-related variables and personal characteristics (e.g., industry tenure, department affiliation, race/ethnicity, and gender) (Beckett et al., 2020; Guttentag et al., 2012; Hing & Breen, 2008; Quilty et al., 2015). We sought to identify characteristics associated with lower-risk and higher-risk behaviors within casino employees.

In addition, the current study explored the possible associations between American-based casino employees' perception toward RG programs, work-related and personal characteristics, and their own self-reported gambling involvement. Central to this investigation is the examination of the relationships between employees' gambling involvement and their views of the RG program (i.e., GameSense) operating within MGM Resorts properties. Research in this area is important because casino employees play a significant role in the effective implementation of RG programs (Riley et al., 2024). Previous studies have shown the success of staff training program implementation is linked to individuals' perceptions of the program (Celestin & Yunfei, 2018; McQuillin et al., 2015). In the RG training context, employees' gambling involvement may shape these perceptions, which in turn could potentially influence how they interact with patrons. For instance, if employees who frequently gamble perceive RG programs as less effective, this skepticism could be conveyed in their interactions with patrons. Such a scenario might lead to a negative portrayal of RG programs, potentially causing patrons to also view these initiatives as unhelpful or irrelevant.

Understanding these dynamics is essential for developing targeted training strategies to enhance employees' perceptions of RG programs and fostering safer gambling environments within the industry.

Research Questions & Study Hypotheses

Using cross-sectional data from Year 3 of a broader research project on gambling among casino employees, the present study includes an assessment of MGM employees' gambling involvement, workplace characteristics, demographic indicators, and views on RG program effectiveness. We have formulated the following research questions for this study.

RQ1a. What is the level of gambling involvement (i.e., frequency and breadth) among a sample of MGM employees?

RQ1b. Does gambling involvement among MGM employees differ based on demographics (e.g., gender, ethnicity, age, and education) and employment characteristics (e.g., property classification, department affiliation, and industry tenure)?

Based on prior work (e.g., Gray et al., 2021; Guttentag et al., 2012), we expect that the majority of the casino employees in our data (i.e., > 80%) to report past-year gambling behavior. However, given the paucity of research about U.S.-based gambling industry employees in the literature, we are not proposing hypotheses about the levels of gambling involvement among employees. In a similar vein, we are not positing hypotheses about the potential relationships between gambling involvement and various work-related and personal characteristics.

We further investigate the bivariate relationships between gambling involvement and employees' perceptions of RG program effectiveness. These exploratory findings will shed light on potential remaining gaps in the available literature.

RQ2. What is the relationship between MGM employees' perceived effectiveness of the RG program that is implemented in their casino and the employees' gambling involvement (i.e., frequency and breadth)?

H2a. Consistent with Gray et al.'s (2021) findings, we hypothesize that casino employees who gamble more frequently will perceive RG programs as less effective compared to non-gamblers or those who gamble less frequently.

In addition, we are examining whether perceived program effectiveness will be associated with breadth of game type or whether it differs if an employee gambler reports an exclusive preference for one type of game compared to those reporting multiple game preferences after adjusting for covariates. Given the lack of extant literature among casino employees, we are not advancing a hypothesis regarding the relationship between the breadth of gambling involvement and employees' perceptions of RG program effectiveness.

Methods

This study was pre-registered online on the Open Science Framework (OSF). Data used in the present study, from this project, were collected prior to this pre-registration, but we did not analyze or view any Year 3 data prior to completing and posting the pre-registration to OSF. Readers can refer to the pre-registration document in the associated OSF project folder [https://osf.io/94uhb/?view_only=3ee6cfd9d4c240dd8f928c22a7f3f420]. Although three research questions were initially presented in the pre-registration, to enable a primary focus on gambling involvement and employees' perceived effectiveness of the RG program, the current study concentrates on only two research questions. The analysis of and results for the remaining research question, concerning MGM employees' gambling

misconceptions and their gambling involvement, can be found in the online supplement (see Supplemental File 1).

We collected data from employees via two channels. First, we distributed an online survey via the MGM system to all MGM employees who held a company email address. The research team supplied all recruitment text to MGM for survey distribution. The University of Nevada, Las Vegas hosted the survey on Qualtrics and supplied the survey URL for use in recruitment materials. Second, data was collected in-person at MGM properties, and additional details related to recruitment and survey procedures are described in the pre-registration document.

Ethics approval for this study was approved by the Institutional Review Board of the University of Nevada, Las Vegas. Participants were notified that the survey was completely voluntary and anonymous. MGM employees were not reimbursed for their participation.

Participants

All MGM employees were eligible to participate in the survey, regardless of their role as GameSense Advisors or level of RG training. Approximately 28,000 employees were contacted via email distribution and in-person participation. All data reported was collected over a 6-week period in January–February 2020, before pre-registering this study. We ceased data collection 10 days after the follow-up invitation. All consented employees took part in the survey to the level they agreed on in the informed consent document. A total of 1,114 MGM employees participated in the Year 3 survey, resulting in an approximate response rate of 4%. Of the respondents, 47.9% identified as male, 41.2% as female, 1.1% self-identified their gender, and 9.7% preferred not to disclose their gender. On average, respondents reported having 14.15 years ($SD = 10.77$) of experience working in the gambling industry. However, 300 participants failed to report on their past year gambling behaviors. We omitted these participants from all analyses. This left us with a sample of 814 MGM employees who reported their past-year gambling behaviors. Post-hoc examination across all responses revealed no evidence of duplicate submissions in our final analytical sample.

Measures

Gambling frequency. We measured past-year gambling frequency by asking, ‘In the past 12 months, how often did you gamble?’ Respondents selected from a scale of 6 items, ranging from 1 (I never gamble), 2 (Less than once a month), 3 (Once a month), 4 (Once a week), 5 (A few times per week), and 6 (Daily). For RQ1b, we used responses to form 3 groups: non-gamblers, respondents who gambled monthly or less often, and respondents who gambled at least weekly. For RQ2, we used the original 6-item classification as a predictor of perceived program effectiveness.

Gambling breadth. We calculated the breadth of gambling involvement by assessing what types of games were played by MGM employees (‘When you gamble, what games do you play?’). Participants could select as many as 7 games: a) poker, b) table games such as blackjack, roulette, craps, c) bingo, d) slot machine games, e) sports betting, f) race betting, and g) lottery. Participants could select all that applied to them. Breadth has typically been measured by summing the total number of game types played (e.g., LaPlante et al., 2014). We also summed up the total number of game types played for each participant, with a possible range of 0 to 7. In addition, we categorized participants into two groups to compare exclusive game type players with non-exclusive game type players. For each respondent, we created a dummy variable equal to 1 if that respondent only reported playing one game type and equal to 0 if a respondent reported playing more than one game type or reported playing no game types.

Perceived Program Effectiveness. It refers to employees’ perceptions of the GameSense program effectiveness. This variable was calculated by the measure established in Abarbanel et al. (2019). Readers can refer to Abarbanel et al. (2021b) for details on this measure. It was composed of 5 items (e.g., ‘MGM’s responsible gambling course was

useful in teaching me about problem gambling'). The component is represented by the mean score of participants' responses to the 5-item scale ('Strongly Disagree' to 'Strongly Agree') and demonstrated good internal consistency (Cronbach's $\alpha = 0.86$). Possible scores ranged from 1 to 5.

Employee demographics. We asked respondents to provide their gender, year of birth, race, ethnicity, language primarily spoken at home, and educational attainment.

Employment characteristics. We collected information on employee characteristics such as years of tenure working at MGM, department affiliation, MGM property classification, and number of years they had worked in the gambling industry.

Data Analysis

We imported and analyzed our data using SPSS v. 27. For all respondents in the sample, we calculated descriptive statistics, including the mean, standard deviation, and range for all continuous variables, and frequencies for categorical variables. Next, we calculated bivariate Spearman correlations for all variables to test whether there were statistically significant relationships among the study variables and to estimate the magnitude of these relationships. We applied listwise deletion to remove missing values from the dataset.

Research Questions 1a and 1b: To evaluate RQ1a and RQ1b, we employed Chi-squares for categorical variables and ANOVAs for continuous variables, to examine if past-year gambling involvement varies as a function of demographics (e.g., age, gender, race/ethnicity, and education level) or casino work characteristics (property classification, department affiliation, industry tenure).

Research Question 2: To evaluate RQ2, we first examined bivariate relationships between Perceived Program Effectiveness and (1) demographic (i.e., gender, age, race/ethnicity, education) and (2) employee characteristics (i.e., industry tenure, department affiliation, MGM property classification). Then, we performed a hierarchical multiple regression analysis to examine the relative contribution of self-reported gambling involvement (i.e., frequency and breadth) in accounting for variation in scores of perceived RG program effectiveness after adjusting for covariates identified from bivariate analyses. Prior to analysis, we examined the assumptions of hierarchical multiple regression. No violations of normality, linearity, multicollinearity, homoscedasticity, or outliers were detected. Specifically, a two-stage hierarchical multiple regression was conducted with Perceived Program Effectiveness as the dependent variable. The first block of independent variables included Asian ethnicity, department affiliation, property classification, and years working in the industry. Gambling frequency (the original 6-item classification) and breadth of gambling involvement (sum score) were entered in Step 2a. Meanwhile, gambling frequency and breadth of gambling involvement (any exclusive game type/no exclusive game type[s]) were entered in Step 2b. In examining these regression models, we assessed the Variance Inflation Factors (VIFs) and collinearity tolerance to determine if the estimated betas were well-established. We used VIF less than 4 as our cutoff for excessive multicollinearity (Hair et al., 2010). In addition to examining the collective significance (using the F-statistic) of the independent variables in each block, we also examined the change in explained variance (i.e., change in R-squared) to determine if gambling involvement adds significantly to the prediction of employees' perceptions of RG program effectiveness after adjusting covariates.

Results

A total of 814 MGM Resorts employees answered the question about their past-year gambling behaviors. Regarding RQ1a, nearly one-third of the respondents reported that they had 'never' gambled in the past 12 months ($n = 268$), while more than half of respondents gambled once a month or less ($n = 462$) and approximately 10% gambled once a week or more ($n = 84$). On average, the total number of game types played by each employee was 1.48 ($SD = 1.18$). The results for RQ1b are shown in Table 1 and Table 2.

As shown in Table 1, there was a statistically significant association between identifying as White and gambling frequency, $\chi^2(2, n = 814) = 10.128, p < 0.05, V = 0.112$. Inspection of percentages showed White participants (11.8%) reported more frequent (weekly or greater) gambling compared to non-White participants (8.2%). Significant differences in gambling frequency also emerged based on property classification, $\chi^2(2, n = 809) = 10.46, p < 0.05, V = 0.114$. Across both property types, most respondents reported gambling monthly or less. However, more respondents in Las Vegas properties gambled at least weekly (13.0%) compared to respondents in non-Las Vegas properties (5.8%). Self-reported gambling frequency also varied by department affiliation, $\chi^2(8, n = 784) = 28.56, p < 0.05, V = 0.135$. Again, a plurality of participants in all five departments reported gambling monthly or less; however, inspection of the percentages revealed that employees working in Front of House casino operations and Security/Surveillance departments were more likely to gamble weekly or more (14.6% and 15.7%, respectively), compared to other departments (< 7.6%). No significant differences in gambling frequency were

Table 1
Differences in Past Year Gambling Frequency by Employee Demographics and Work-Related Characteristics

	Non-gambler (n = 268)	Monthly or less (n = 462)	Weekly or more (n = 84)	χ^2	Cramer's V
Gender				3.54	0.072
Male	106 (28.8%)	220 (59.8%)	42 (11.4%)		
Female	109 (34.2%)	184 (57.7%)	26 (8.2%)		
Ethnicity/race					
White				10.13**	0.112**
Yes	136 (28.7%)	282 (59.5%)	56 (11.8%)		
No	132 (38.8%)	180 (52.9%)	28 (8.2%)		
Black/African American				3.08	0.062
Yes	24 (41.4%)	31 (53.4%)	3 (5.2%)		
No	244 (32.3%)	431 (57.0%)	81 (10.7%)		
Asian				2.63	0.057
Yes	27 (34.2%)	40 (50.6%)	12 (15.2%)		
No	241 (32.8%)	422 (57.4%)	72 (9.8%)		
Hispanic				1.75	0.046
Yes	29 (35.8%)	47 (58.0%)	5 (6.2%)		
No	239 (32.6%)	415 (56.6%)	79 (10.8%)		
Other (e.g., Native American)				1.29	0.040
Yes	14 (35.0%)	20 (50.0%)	6 (15.0%)		
No	254 (32.8%)	442 (57.1%)	78 (10.1%)		
Education level				11.27	0.087
Some high school/High school	26 (31.0%)	49 (58.3%)	9 (10.7%)		
Some college	84 (36.1%)	118 (50.6%)	31 (13.3%)		
Associate's degree	26 (29.2%)	57 (64.0%)	6 (6.7%)		
Bachelor's degree	73 (27.7%)	166 (62.9%)	25 (9.5%)		
Graduate degree	27 (37.5%)	39 (54.2%)	6 (8.3%)		
Property classification				10.46**	0.114**
Las Vegas property	164 (31.8%)	285 (55.2%)	67 (13.0%)		
non-Las Vegas property	104 (35.5%)	172 (58.7%)	17 (5.8%)		
Department affiliation				28.56***	0.135***
Food, Beverage and Retail	35 (46.1%)	36 (47.4%)	5 (6.6%)		
Front of house operations casino	72 (26.9%)	157 (58.6%)	39 (14.6%)		
Front of house operations non-casino	52 (43.7%)	58 (48.7%)	9 (7.6%)		
Security and surveillance	14 (20.0%)	45 (64.3%)	11 (15.7%)		
Back of house operation	83 (33.1%)	149 (59.4%)	19 (7.6%)		
		<i>M (SD)</i>		One-way ANOVA	
Age	45.4 (11.4)	44.4 (12.4)	43.4 (13.7)	<i>F</i>	<i>p</i>
Years working in the industry	13.7 (10.8)	14.1 (10.6)	15.6 (10.7)	0.721	0.487
				0.998	0.369

Note. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

noted among the respondents by gender, non-White race/ethnicity, educational level, age, or employment tenure in the gaming industry.

Table 2 presents the differences in past-year gambling breadth (sum score) based on employee demographics and work-related attributes. Men ($M = 1.58, SD = 1.16$) reported a higher average gambling breadth score compared to women ($M = 1.40, SD = 1.13$), $t(685) = 1.99, p < 0.05, d = 0.15$. In addition, a significant variation in gambling breadth scores was observed in relation to departmental affiliation, $F(4, 779) = 2.44, p < 0.05, \eta_p^2 = 0.01$. Subsequent post hoc analyses (Tukey's test) revealed that Front of House operations casino employees ($M = 1.60, SD = 1.26$) reported higher gambling breadth scores than those working in Food, Beverage and Retail ($M = 1.18, SD = 1.04$) (Cohen's $d = 0.34$). We found no significant difference in gambling breadth as a function of ethnicity/race, educational level, age, or tenure in the gaming industry.

Table 2
Differences in Past Year Gambling Breadth (Sum Score) by Employee Demographics and Work-Related Characteristics

	<i>M (SD)</i>	<i>t</i>	Effect Size Cohen's <i>d</i>
Gender		1.99*	0.15
Male	1.58 (1.16)		
Female	1.40 (1.13)		
Ethnicity/race			
White		1.80	0.13
Yes	1.54 (1.21)		
No	1.39 (1.13)		
Black/African American		-0.57	0.08
Yes	1.39 (1.18)		
No	1.49 (1.18)		
Asian		1.21	0.14
Yes	1.63 (1.40)		
No	1.47 (1.15)		
Hispanic		1.20	0.14
Yes	1.63 (1.23)		
No	1.47 (1.17)		
Other (e.g., Native American)		-0.17	0.03
Yes	1.45 (1.36)		
No	1.48 (1.17)		
Property classification		0.80	0.06
Las Vegas property	1.51 (1.13)		
Non-Las Vegas property	1.44 (1.20)		
		One-way ANOVA	
		<i>F</i>	η_p^2
Education level		1.36	0.01
Some high school/High school	1.39 (1.11)		
Some college	1.53 (1.21)		
Associate's degree	1.49 (1.20)		
Bachelor's degree	1.58 (1.16)		
Graduate degree	1.25 (1.10)		
Department affiliation		2.44*	0.01
Food, Beverage and Retail	1.18 ^a (1.04)		
Front of house operations casino	1.60 ^b (1.26)		
Front of house operations non-casino	1.44 (1.03)		
Security and surveillance	1.63 (1.13)		
Back of house operation	1.42 (1.15)		
		Spearman's correlation	
Age		$\rho = -0.04$	
Years working in the industry		$\rho = 0.03$	

Note. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. Means with different superscripts differ significantly.

As shown in Table 3, the mean score for Perceived Program Effectiveness was 3.92

($SD = 0.85$). Employees who identified as Asian reported significantly higher means for Perceived Program Effectiveness ($M = 4.12, SD = 0.80$) than non-Asian employees ($M = 3.90, SD = 0.85$) (Cohen's $d = 0.27$). Significant differences in Perceived Program Effectiveness were also observed with respect to property classification, $t(781) = 3.23, p < 0.05, d = 0.24$. Additionally, significant variations in Perceived Program Effectiveness were noted among different department affiliations, $F(4, 753) = 8.67, p < 0.05, \eta_p^2 = 0.04$. Tukey's Post hoc analysis revealed that Front of House operations casino employees ($M = 4.14, SD = 0.80$) reported higher means for Perceived Program Effectiveness compared to employees in Back of House operations ($M = 3.75, SD = 0.83$) (Cohen's $d = 0.51$), Se-

Table 3
Associations of Perceived Program Effectiveness with Past Year Gambling Behavior, Employee Demographics and Work-Related Characteristics

	<i>M (SD)</i>	<i>t</i>	Effect Size Cohen's <i>d</i>
Gender			
Male	3.91 (0.87)	-0.83	0.06
Female	3.96 (0.84)		
Ethnicity/race			
White		-0.34	0.03
Yes	3.91 (0.84)		
No	3.93 (0.88)		
Black/African American		0.70	0.10
Yes	4.00 (0.95)		
No	3.91 (0.84)		
Asian		2.25*	0.27
Yes	4.12 (0.80)		
No	3.90 (0.85)		
Hispanic		0.42	0.05
Yes	3.96 (0.84)		
No	3.92 (0.85)		
Other (e.g., Native American)		0.03	0.01
Yes	3.92 (0.85)		
No	3.92 (0.82)		
Property classification		-3.23***	0.24
Las Vegas Property	3.84 (0.87)		
Non-Las Vegas Property	4.05 (0.79)		
		One-way ANOVA	
		<i>F</i>	η_p^2
Past year gambling		0.71	0.002
Non-gambler	3.87 (0.87)		
Monthly or less	3.95 (0.82)		
Weekly or more	3.88 (0.93)		
Education level		0.99	0.005
Some high school/High school	4.06 (0.91)		
Some college	3.88 (0.88)		
Associate's degree	4.01 (0.85)		
Bachelor's degree	3.90 (0.82)		
Graduate degree	3.95 (0.85)		
Department affiliation		8.67***	0.044
Food, Beverage and Retail	4.02 (0.73)		
Front of house operations casino	4.14 ^a (0.80)		
Front of house operations non-casino	3.88 ^b (0.86)		
Security and surveillance	3.71 ^b (1.02)		
Back of house operation	3.75 ^b (0.83)		
		Spearman's correlation	
Gambling breadth (0-7)		$\rho = -0.03$	
Age		$\rho = 0.06$	
Years working in the industry		$\rho = 0.11^{**}$	

Note. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. Means with different superscripts differ significantly.

curity and Surveillance ($M = 3.71, SD = 1.02$) (Cohen's $d = 0.49$), and Front of House non-casino employees ($M = 3.88, SD = 0.86$) (Cohen's $d = 0.31$). A positive correlation was found between Perceived Program Effectiveness and industry tenure, $\rho = 0.09$. In addition, to simplify the model in the hierarchical multiple regression, department affiliations were reclassified into two groups reflecting their level of contact with gamblers: high contact (including Front of House operations casino and Security and Surveillance) and low contact (including Back of House operations, Food, Beverage and Retail, and Front of House non-casino employees), as suggested by Abarbanel et al. (2021a). This reclassification also showed significant differences in Perceived Program Effectiveness, $t(756) = 3.62, p < 0.05, d = 0.27$.

Thus, Asian ethnicity, property classification (Las Vegas properties coded as '1' and non-Las Vegas properties coded as '0'), department affiliation (high-contact departments coded as '1' and low-contact departments coded as '0'), and industry tenure were incorporated into a hierarchical multiple regression to predict Perceived Program Effectiveness. Results were presented in Table 4. The model that predicted Perceived Program Effectiveness using Asian ethnicity, department affiliation, property classification, and industry tenure accounted for a significant proportion of the variance, $F(4, 745) = 8.35, p < 0.05, R^2 = 0.043$. However, the addition of gambling frequency and breadth of gambling involvement (breadth sum score in Step 2a) did not result in a significant increase in the variance accounted for in Perceived Program Effectiveness, $\Delta R^2 = 0.001, p > 0.05$.

In a similar vein, incorporating the gambling frequency and breadth of gambling involvement variables (breadth exclusive game type/non-exclusive game type in Step 2b) did not lead to a significant increase in the variance accounted for in Perceived Program Effectiveness, $\Delta R^2 = 0.000, p > 0.05$. As such, we found no support for *H2a* (i.e., more frequent gambling involvement among casino employee gamblers will be associated with lower Perceived Program Effectiveness when compared to non-gamblers or less frequent employee gamblers) for RQ2. Moreover, no significant associations were detected between the Perceived Program Effectiveness and gambling breadth (sum score or exclusive game type/non-exclusive game type).

Table 4
Summary of Hierarchical Regression Analysis for Variables Predicting Perceived Program Effectiveness

	<i>B</i>	<i>t</i>	<i>F</i>	<i>R</i> ²	ΔR^2
Step 1			8.35	0.043	0.043***
Asian	0.30	2.88**			
Department affiliation	0.16	2.36*			
Property classification	-0.23	-3.48***			
Years working in the industry	0.01	2.05*			
Step 2a			5.73	0.044	0.001
Asian	0.30	2.87**			
Department affiliation	0.16	2.40*			
Property classification	-0.22	-3.36***			
Years working in the industry	0.01	2.05*			
Gambling frequency	-0.03	-0.81			
Gambling breadth (sum score)	0.03	0.88			
Step 2b			5.60	0.043	0.000
Asian	0.30	2.89**			
Department affiliation	0.16	2.41*			
Property classification	-0.22	-3.38***			
Years working in the industry	0.01	2.05*			
Gambling frequency	-0.02	-0.49			
Gambling breadth (exclusive/non-exclusive)	-0.01	-0.19			

Note. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Discussion

The current study examined gambling breadth and frequency, and relationships with workplace characteristics, demographic measures, and perceptions of RG program effectiveness among a large sample of MGM employees ($n = 814$) from multiple casino properties across the U.S. The results showed that gambling frequency differed by ethnicity, department affiliations, and property location, while variations in gambling breadth were observed across gender and department affiliations. Additionally, employees identifying as Asian, those with longer industry tenure, or those working in high-contact departments or non-Las Vegas properties viewed the RG programs as more effective.

The relationship observed between White ethnicity and more frequent gambling in our study warrants additional discussion. Although the association is statistically significant, its magnitude is small. This aligns with existing literature, which often reports only minor differences in gambling frequencies across diverse racial and ethnic groups (Barnes et al., 2015, 2017). We also found that gambling frequency was significantly associated with department affiliation. Specifically, employees who have low contact with gamblers (e.g., Back of House employees) were more likely to be non-gamblers; employees who have high contact with gamblers (e.g., Front of House operations casino employees) tended to gamble more frequently than employees in low-contact positions. This finding is in line with the previous research indicating that regular exposure to gambling placed employees at higher risk of problem gambling (Shaffer & Korn, 2002; Wong & Lam, 2013), though our findings only assessed frequency of gambling behaviors, and not symptoms associated with problem gambling severity.

Moreover, it is of note that there was a statistically significant relationship between gambling frequency and property classification. Specifically, among employees working at MGM properties in Las Vegas (e.g., the Bellagio, Park MGM, Luxor, etc.), a higher percentage (13.0%) were found to gamble weekly or more frequently. In contrast, a smaller percentage (5.8%) of employees who worked at non-Las Vegas properties (e.g., MGM Grand Detroit) reported gambling weekly or more frequently. This difference could potentially be explained by venue accessibility and the variation in social norms surrounding gambling in these locations. Due to internal policies of many casino companies that restrict employees from gambling at their own workplace, employees' gambling opportunities are largely dependent on the availability of other venues in their region. Those in Las Vegas have substantial access to alternative gambling venues operated by different companies throughout the city. In contrast, employees in markets like Detroit have limited options, with only three commercial casinos in total within the metropolitan area (Michigan Gaming Control Board, 2024). Additionally, Las Vegas, a world-renowned hub for gambling, has a long history of legalized gambling and a vast number of gambling venues. This tends to foster a greater acceptance of gambling, leading to higher rates of frequent gambling among casino employees. Conversely, in locations such as Detroit, where gambling was legalized significantly later and where fewer gambling venues exist, there tends to be lower rates of frequent gambling among casino employees. While statistically significant, the small effect sizes in our research indicate that ethnicity and workplace characteristics are just elements of a wider array of factors influencing gambling frequency. These findings lay the groundwork for future studies to explore these complex dynamics among casino employees.

Regarding gambling breadth, Gray et al. (2021) reported that each employee participated in a mean of 2.3 gambling activities; in the current study, the mean was 1.5 gambling activities. Therefore, the current participants reported lower levels of gambling involvement when compared to the Massachusetts sample for both frequency and breadth. We also found that gambling breadth among casino employees, as measured by the total number of game types played, varied by gender. This observation replicated a previous finding that men participated in a greater number of types of games than women on average ($M = 1.9$ vs. $M = 1.3$) (Wardle, 2013). Furthermore, we observed that the most popular gambling activity among male employees was playing table games, whereas the most popular gambling

activity among women was playing slot machines. This is in line with the extant research findings, which suggest that females tended to prefer non-skill-based games (e.g., slot machines) and men preferred skill-based games (e.g., table games) (Hing et al., 2014). As some researchers have suggested that slot machine play is more likely to lead to gambling problems (Binde et al., 2017; Dixon et al., 2018), employees who prefer this gambling form should receive greater attention from casino operators when it comes to increasing awareness of risk factors for problem gambling. Additionally, our analysis revealed a statistically significant, but small variation in gambling breadth scores across different casino departmental affiliations. Front of House casino employees tended to engage in more types of games compared to those in Food, Beverage, and Retail. While this difference is statistically significant, its practical significance may be limited due to the small effect size and the lack of notable differences in gambling breadth scores among other departmental roles.

Based on the results of the hierarchical multiple regression models, we identified the following variables as predicting Perceived Program Effectiveness: Asian ethnicity, department affiliation, property classification, and industry tenure. Notably, employees who identify as Asian were more likely to perceive RG programs to be effective. Although past research has not examined the role of ethnicity in predicting employee perceptions of RG programs, this finding is in line with the evidence reported in Youn et al. (2018), who suggested that Asian employees tended to have more favorable views of the effectiveness of programs that benefit the community due to their stronger collectivism. Collectivist cultures, which are common in many Asian societies, emphasize the importance of group harmony, interdependence, and cooperation (Kitayama et al., 1997; Oyserman et al., 2002). This cultural orientation may contribute to Asian employees' greater appreciation for RG programs, as they perceive these initiatives as efforts to promote the well-being of the larger community.

Our results also suggest that MGM employees' views on RG program effectiveness differed based on property classification, department affiliation, and industry tenure. Employees who worked at MGM regional properties reported higher Perceived Program Effectiveness than those who worked at properties in Las Vegas. Two factors may explain these differences. First, jurisdictional requirements for employee gambling-related training could influence RG perceptions, particularly in regions where RG and problem gambling are conflated in regulatory frameworks versus jurisdictions where they are treated as distinct concepts. For instance, Nevada gaming regulations require employee training to focus on the nature and symptoms of problem gambling behavior (Nevada Gaming Control Board, 2024), and their experiences with such training might have influenced their perceptions of GameSense as an RG intervention. Second, in Las Vegas, where gambling is more prevalent and likely seen as a normative behavior, employees could perceive problem gambling issues as less significant than their colleagues in regions like Detroit, Springfield, and Biloxi, where gambling is less prevalent. This acceptance of gambling as a norm in Las Vegas may lead these employees to underestimate the risk of problem gambling, which might, in turn, diminish their perceived effectiveness of the RG program.

In terms of department affiliation, employees who have high contact with gamblers tended to find the RG program to be more effective, when compared to those who have low contact with gamblers. This result might be explained by the fact that those employees in high-contact positions experienced a greater number of positive encounters with gamblers and thus demonstrated more favorable views on RG program effectiveness. Industry tenure also emerged as a significant predictor, with employees possessing longer industry tenure perceiving RG programs as more effective. This relationship might be explained by the socialization theory (Van Maanen & Schein, 1979), suggesting that longer tenure in the industry may lead to a greater acceptance and understanding of industry norms, values, and practices, including the purpose and effectiveness of RG programs. Furthermore, the concept of self-efficacy theory (Bandura, 1977) may shed light on this relationship. Self-efficacy theory suggests that an individual's belief in their ability to successfully perform certain actions can boost their motivation and perception of related tasks. Applying this to

RG programs, it can be theorized that employees might develop a stronger belief in their capabilities to handle gambling-related challenges, thanks to their extensive experiences. This increased sense of self-efficacy could lead to a more favorable perception of the effectiveness of RG programs.

In our regression analysis, we found that the factors included in our model explain only a limited portion of the variance in perceived effectiveness of RG programs. This indicates the likelihood of other influential, yet unexamined factors that shape these perceptions. One such factor could be the employees' specific involvement with the RG program. It is possible that a higher level of exposure to RG content might lead employees to develop more favorable views on the program's effectiveness, as they become more familiar with its content. Another notable factor to consider is the role conflict experienced by casino employees. They are tasked with dual responsibilities: on one hand, they are expected to generate revenue by attracting patrons, and on the other, they must comply with RG programs, a commitment that could potentially lead patrons to visit competing casinos. Such role conflict is identified as a major source of job stress in the gambling industry (Riley et al., 2018; Tiyce et al., 2013). It is plausible that employees who experience greater role conflict view RG programs as less effective due to the stress associated with their contradictory duties. Thus, the perception of RG program effectiveness among employees may be significantly influenced by the degree of role conflict they experience. Recent research has highlighted the oversight in examining the role of conflict in studies concerning employee perspectives and the implementation of RG initiatives (Riley et al., 2024). This underscores the need for further research in this domain, including the development of tools to measure role conflict among gambling venue staff.

In prior work, Gray et al. (2021) found that casino employees who gambled more often were less likely to hold positive views on RG program effectiveness. They posited that this occurred because frequent gamblers tended to have more realistic views on the effectiveness of programs that aim to change gambling behaviors (Gray et al., 2021). Contrary to our expectations, we observed no significant relationship between gambling frequency and employees' perceptions of RG program effectiveness in this study. The inconsistency could potentially be due to the selection of participants. Gray et al. (2021) recruited participants from the Plainridge Park Casino, a non-MGM-owned property, whereas the present study collected data from multiple MGM properties across the U.S. Alternatively, this finding might also be due to restricted range in the gambling involvement variables collected in the current study.

Practical Implications

The results from our regression models reveal that while variables such as Asian ethnicity, department affiliation, property classification, and industry tenure only account for a small portion of the variance in predicting employees' perceptions of RG program effectiveness, they offer important insights. These nuanced relationships underscore the value of RG training programs adopting approaches tailored to meet the specific needs of different departments and to recognize the diverse backgrounds and experiences of employees. For example, it may be prudent for casino operators to highlight the positive outcomes of RG programs during the training sessions for Las Vegas casino employees as a means of reshaping their perceptions of RG program effectiveness. Furthermore, these findings provide a foundation for future research aimed at identifying additional factors that could better explain employees' perceptions toward RG program effectiveness.

Much like any program or process in place in an organizational setting, it is crucial to emphasize the importance of continuous evaluation and improvement in RG training and player safety monitoring in casino employee RG programming. Given the rise in technological advancement among gambling operators, such as the gambling-gaming convergence and EGM innovations (Kim & King, 2020), it is particularly important for employees to receive periodic RG training on potential changes in risk factors for problem gambling, or if there are noted changes in specific gambling behaviors over time more generally (e.g., a

rise in sports wagering (Etuk et al., 2022) that might have implications for casino employees).

Study Limitations

There are a few limitations in current study that are important and require further elaboration. First, we could not assess the presence of problem gambling among casino employees as our survey did not include any problem gambling screening measures. Given that casino employees have been identified as an at-risk population in previous studies (e.g., Guttentag et al., 2012; Hing & Gainsbury, 2013; Wong & Lam, 2013), future research with this population would benefit from incorporating a validated problem gambling measure, such as the Brief Biosocial Gambling Screen (BBGS) (Gebauer et al., 2010), to better assess for problem gambling symptoms among this unique occupational group.

Second, we did not measure participants' level of GameSense training. Employees with basic training might have a limited understanding of the program's full scope, potentially leading to lower perceived program effectiveness compared to those with advanced training who have deeper knowledge of the program's tools and resources. These different training experiences likely influence how employees view the program's effectiveness, making it important for future research to investigate the relationship between RG training levels and employee perceptions.

Third, this study examined only past-year gambling involvement among casino employees who worked in the U.S. The results might not be generalized to employees in other geographic regions, particularly those in jurisdictions where casino employees are not allowed to gamble while off duty. It is possible that employees in jurisdictions with laws that prohibit them from gambling tend to report lower gambling frequency and breadth than those in regions lacking these requirements. Also, our study focused on exploring perceptions of RG program effectiveness among employees of a single company, MGM Resorts International. The findings cannot be generalized to casino employees in other companies with respect to their attitudes toward RG programs. Company cultures—including the extent to which corporate social responsibility is emphasized—may play a role in influencing employees' attitudes to RG programs (Abarbanel et al., 2021b).

Fourth, the cross-sectional methodology of the study precludes a robust empirical assessment of causation between the variables. Without longitudinal data, it is difficult to draw conclusions about causal relationships between employees' perceived effectiveness of RG programs and their gambling involvement. Fifth, the survey had an approximate 4% response rate. This low response rate could result from a lack of participant incentives (Singer & Ye, 2013) and aligns with the declining trend in organizational survey responses, especially among large, diverse employee groups (Baruch & Holtom, 2008).

Lastly, self-reported data has potential limitations, including possible social desirability bias and self-selection bias. Social desirability bias occurs when participants have a greater tendency to respond to questions in a socially desirable manner. For example, there is evidence that Asian Americans are more likely to answer questions in a manner that will be viewed favorably by others (Abe & Zane, 1990; Kim & Kim, 2017). As a result, Asian employees might report higher Perceived Program Effectiveness scores. Self-selection bias can arise when participants themselves decide whether to take part in the study. Therefore, the current findings might not be representative of all MGM employees working in the U.S.

Conclusions

In summary, the involvement of casino employees is essential for the success of RG initiatives. Previous studies have shown that the success of staff training program implementation is linked to individuals' perceptions of the program. Therefore, understanding employees' perspectives on RG program effectiveness (e.g., GameSense) is important as these perceptions may shape how actively they engage in program implementation. The current study examined the relationships between MGM employees' perceptions of RG

program effectiveness and their demographic and work characteristics, and past-year gambling frequency and breadth. The hierarchical multiple regression analysis revealed that Asian employees, those in high-contact positions with gamblers, staff at non-Las Vegas locations, and individuals with longer industry tenure are more likely to view the RG program as effective compared to their counterparts. These findings emphasize the importance of developing RG training strategies tailored to the diverse backgrounds of employees. Specifically, understanding demographic and work characteristics of employees with less favorable perceptions could inform targeted trainings, such as incorporating concrete examples and success stories from experienced staff to better demonstrate program effectiveness for employees. However, the limited variance explained by these factors in the regression model suggests the presence of other critical but unexplored variables, such as role conflict. Future research could examine these factors to gain a comprehensive understanding of what predicts lower perceived program effectiveness, which could inform the development of targeted training strategies to enhance how employees value and ultimately implement RG programs.

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During the past five years, International Gaming Institute at University of Nevada, Las Vegas, has received research and program funding from Draft Kings, American Gaming Association, ESPN, MGM Resorts International, Wynn Resorts Ltd, Las Vegas Sands Corporation, Entain Foundation, Aristocrat Gaming, San Manuel Band of Mission Indians, Axes.ai, Sports Betting Alliance, Playtech, Sightline Payments, Global Payments, the State of Nevada Knowledge Fund, and State of Nevada Department of Health and Human Services. IGI runs the triennial research-focused International Conference on Gambling and Risk Taking, whose sponsors include industry, academic, and legal/regulatory stakeholders in gambling. A full list of sponsors for the most recent conference can be found at <https://www.unlv.edu/igi/conference/18th/sponsors>. IGI maintains a strict research policy (<https://www.unlv.edu/igi/research-policy>), as well as partnership and transparency framework (<https://www.unlv.edu/igi/policies/partnership>) to ensure appropriate firewalls exist between funding entities—no matter the entity’s classification—and IGI’s research and programs.

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During the past five years, Heather M. Gray has served as a paid grant reviewer for the International Center for Responsible Gaming (ICRG), received travel funds and honoraria from the ICRG, received travel funds from the Alberta Gambling Research Institute, and received speaker fees from the Responsible Gaming Association of New Mexico and the University of Iowa.

During the past five years, Debi A. LaPlante has served as a paid grant reviewer for the International Center for Responsible Gaming (ICRG), received travel funds, speaker honoraria, and a scientific achievement award from the ICRG, received honoraria from Harvard Health Publications, and received publication royalty fees from the American Psychological Association, Dr. LaPlante is a non-paid member of the New Hampshire Council for Responsible Gambling.

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References

- Abarbanel, B., Soligo, M., Dassopoulos, A., Bernhard, B., Hoffman, S., & Roberts, J. (2018). *Evaluating and enhancing Gamesense: A qualitative approach with employees*. UNLV International Gaming Institute.
- Abarbanel, B., Gray, H. M., LaPlante, D. A., & Bernhard, B. J. (2019). Association between employee department and responsible gambling program perceptions. *International Gambling Studies, 19*(3), 471–488.
- Abarbanel, B., Kraus, S., Huang, Q. (Tiffany), Gray, H., Louderback, E., LaPlante, D., & Bernhard, B. (2021a). Association between employee department and responsible gambling program perceptions: Extension and follow-up study. *Journal of Hospitality and Tourism Insights, 4*(5), 582–600.
- Abarbanel, B., Xu, T., Kraus, S., Gray, H. M., Louderback, E. R., LaPlante, D., & Bernhard, B. (2021b). Association between casino resort employee department and responsible gambling program perceptions: A three-year follow-up study. *International Gambling Studies, 22*(3), 390–411.
- Abe, J. S., & Zane, N. W. S. (1990). Psychological maladjustment among Asian and White American college students: Controlling for confounds. *Journal of Counseling Psychology, 37*(4), 437–444.
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review, 84*(2), 191–215.
- Barnes, G. M., Welte, J. W., & Tidwell, M. O. (2017). Gambling involvement among Native Americans, Blacks, and Whites in the United States. *The American Journal on Addictions, 26*(7), 713–721.
- Barnes, G. M., Welte, J. W., Tidwell, M. O., & Hoffman, J. H. (2015). Gambling and substance use: Co-occurrence among adults in a recent general population study in the United States. *International Gambling Studies, 15*(1), 55–71.
- Baruch, Y., & Holtom, B. C. (2008). Survey response rate levels and trends in organizational research. *Human Relations, 61*(8), 1139–1160.
- Beckett, M., Keen, B., Angus, D. J., Pickering, D., & Blaszczyński, A. (2020). Responsible gambling staff training in land-based venues: A systematic review. *International Gambling Studies, 20*(2), 331–367.
- Binde, P., Romild, U., & Volberg, R. A. (2017). Forms of gambling, gambling involvement and problem gambling: Evidence from a Swedish population survey. *International Gambling Studies, 17*(3), 490–507.
- Breen, H., Buultjens, J., & Hing, N. (2006). Implementing responsible gambling practices in a regional area. *Journal of Hospitality and Tourism Management, 13*(1), 23–43.
- Celestin, B. N., & Yunfei, S. (2018). The impact of learner characteristics on training transfer expectation: A survey of Thai teachers' perception of cloud computing tools. *International Journal of Training and Development, 22*(4), 256–273.
- Dixon, M. J., Stange, M., Larche, C. J., Graydon, C., Fugelsang, J. A., & Harrigan, K. A. (2018). Dark flow, depression and multiline slot machine play. *Journal of Gambling Studies, 34*(1), 73–84.
- Etuk, R., Xu, T., Abarbanel, B., Potenza, M. N., & Kraus, S. W. (2022). Sports betting around the world: A systematic review. *Journal of Behavioral Addictions, 11*(3), 689–715.
- GameSense. (2022). *GameSense homepage*. <https://www.gamesense.com/>
- Gebauer, L., LaBrie, R., & Shaffer, H. J. (2010). Optimizing DSM-IV-TR classification accuracy: A brief biosocial screen for detecting current gambling disorders among gamblers in the general household population. *The Canadian Journal of Psychiatry, 55*(2), 82–90.
- Gray, H. M., Juliver, J., & LaPlante, D. A. (2021). Gambling industry employees' experiences with an onsite responsible gambling program. *Journal of Gambling Studies, 37*, 369–386.

- Guttentag, D., Harrigan, K., & Smith, S. (2012). Gambling by Ontario casino employees: Gambling behaviours, problem gambling and impacts of the employment. *International Gambling Studies*, 12(1), 5–22.
- Hair, J. F., Black, W. C., & Babin, B. J. (2010). *Multivariate data analysis: A global perspective*. Pearson Education.
- Hearn, N. L., Ireland, J. L., Eslea, M., & Fisk, J. E. (2021). Exploring pathways to gambling: Proposing the integrated risk and protective factors model of gambling types. *Journal of Gambling Studies*, 37(1), 1–26.
- Hing, N. (2003). *An assessment of member awareness, perceived adequacy and perceived effectiveness of responsible gambling strategies in Sydney clubs*. Southern Cross University. <https://researchportal.scu.edu.au/esploro/outputs/report/An-assessment-of-member-awareness-perceived/991012822021502368>
- Hing, N. (2005). Giving the gamblers a voice: The perceived efficacy of responsible gambling practices in NSW clubs. *Gambling Research*, 17(1), 53–69.
- Hing, N., & Breen, H. (2008). Risk and protective factors relating to gambling by employees of gaming venues. *International Gambling Studies*, 8(1), 1–23.
- Hing, N., & Gainsbury, S. (2013). Workplace risk and protective factors for gambling problems among gambling industry employees. *Journal of Business Research*, 66(9), 1667–1673.
- Kim, H. S., & King, D. L. (2020). Gambling-gaming convergence: New developments and future directions. *International Gambling Studies*, 20(3), 373–379.
- Kim, S. H., & Kim, S. (2017). Ethnic differences in social desirability bias: effects on the analysis of public service motivation. *Review of Public Personnel Administration*, 37(4), 472–491.
- Kitayama, S., Markus, H. R., Matsumoto, H., & Norasakkunkit, V. (1997). Individual and collective processes in the construction of the self: Self-enhancement in the United States and self-criticism in Japan. *Journal of Personality and Social Psychology*, 72(6), 1245–1267.
- Ladouceur, R., Shaffer, P., Blaszczynski, A., & Shaffer, H. J. (2016). Responsible gambling: A synthesis of the empirical evidence. *Addiction Research & Theory*, 25(3), 225–235.
- LaPlante, D. A., Afifi, T. O., & Shaffer, H. J. (2013). Games and gambling involvement among casino patrons. *Journal of Gambling Studies*, 29(2), 191–203.
- LaPlante, D. A., Nelson, S. E., & Gray, H. M. (2014). Breadth and depth involvement: Understanding Internet gambling involvement and its relationship to gambling problems. *Psychology of Addictive Behaviors*, 28(2), 396–403.
- Leung, T. C. H., & Snell, R. S. (2017). Attraction or distraction? Corporate Social Responsibility in Macao's gambling industry. *Journal of Business Ethics*, 145, 637–658.
- Loo, J. M. Y., Kraus, S. W., & Potenza, M. N. (2019). A systematic review of gambling-related findings from the National Epidemiologic Survey on Alcohol and Related Conditions. *Journal of Behavioral Addictions*, 8(4), 625–648.
- Manian, W., Li, X., & Zeng, Z. (2023). Employee perceptions of responsible gambling in Macao: Concepts, indicators, and intervention barriers. *Journal of Gambling Studies*, 39(1), 431–446.
- Mazar, A., Zorn, M., Becker, N., & Volberg, R. A. (2020). Gambling formats, involvement, and problem gambling: Which types of gambling are more risky? *BMC Public Health*, 20, 711.
- McQuillin, S. D., Straight, G. G., & Saeki, E. (2015). Program support and value of training in mentors' satisfaction and anticipated continuation of school-based mentoring relationships. *Mentoring & Tutoring: Partnership in Learning*, 23(2), 133–148.

- MGM Resorts International. (2022). *MGM Resorts International press release*. <https://investors.mgmresorts.com/investors/news-releases/press-release-details/2022/MGM-RESORTS--BETMGM-TOUT-PLAYER-RESOURCES-SUPPORT-DURING-INAUGURAL-RESPONSIBLE-GAMING-EDUCATION-MONTH/default.aspx>
- Michigan Gaming Control Board. (2024). *Detroit Casinos*. <https://www.michigan.gov/mgcb/detroit-casinos>
- Nelson, S. E., LaPlante, D. A., Gray, H. M., Tom, M. A., Kleschinsky, J. H., & Shaffer, H. J. (2018). Already at the table: Patterns of play and gambling involvement prior to gambling expansion. *Journal of Gambling Studies*, 34, 275–295.
- Nevada Gaming Control Board. (2024). *Regulation 5: Operation of gaming establishments*.
- Oyserman, D., Coon, H. M., & Kimmelmeier, M. (2002). Rethinking individualism and collectivism: Evaluation of theoretical assumptions and meta-analyses. *Psychological Bulletin*, 128(1), 3–72.
- Philander, K., Tabri, N., Wood, R., & Wohl, M. (2022). Casino proximity, visit frequency, and gambling problems. *International Gambling Studies*, 22(3), 459–479.
- Quilty, L. C., Robinson, J., & Blaszczynski, A. (2015). Responsible gambling training in Ontario casinos: Employee attitudes and experience. *International Gambling Studies*, 15(3), 361–376.
- Riley, B. J., Lawn, S., Crisp, B. R., & Battersby, M. (2024). Much ado about nothing? The role of land-based gambling venue employees in facilitating problem gambling harm reduction and help-seeking. *Journal of Gambling Studies*, 40, 387–408.
- Riley, B. J., Orlowski, S., Smith, D., Baigent, M., Battersby, M., & Lawn, S. (2018). Understanding the business versus care paradox in gambling venues: A qualitative study of the perspectives from gamblers, venue staff and counsellors. *Harm Reduction Journal*, 15, 49.
- Shaffer, H. J., Bilt, J. V., & Hall, M. N. (1999). Gambling, drinking, smoking and other health risk activities among casino employees. *American Journal of Industrial Medicine*, 36(3), 365–378.
- Shaffer, H. J., & Hall, M. N. (2002). The natural history of gambling and drinking problems among casino employees. *The Journal of Social Psychology*, 142(4), 405–424.
- Shaffer, H. J., & Korn, D. A. (2002). Gambling and related mental disorders: A public health analysis. *Annual Review of Public Health*, 23, 171–212.
- Singer, E., & Ye, C. (2013). The use and effects of incentives in surveys. *The Annals of the American Academy of Political and Social Science*, 645, 112–141.
- Song, H. J., Lee, H. M., Lee, C. K., & Song, S. J. (2015). The role of CSR and responsible gambling in casino employees' organizational commitment, job satisfaction, and customer orientation. *Asia Pacific Journal of Tourism Research*, 20(4), 455–471.
- Tiye, M., Hing, N., Cairncross, G., & Breen, H. (2013). Employee stress and stressors in gambling and hospitality workplaces. *Journal of Human Resources in Hospitality & Tourism*, 12(2), 126–154.
- Tong, K. K., Hung, E. P. W., Lei, C. M. W., & Wu, A. M. S. (2018). Public awareness and practice of responsible gambling in Macao. *Journal of Gambling Studies*, 34, 1261–1280.
- Van Maanen, J. E., & Schein, E. H. (1977). Toward a theory of organizational socialization. *Research in Organizational Behavior*, 1, 209–264.
- Wardle, H. (2013). *Gambling behaviour*. In L. Rutherford, S. Hinchcliffe, & C. Sharp (Eds.), *Scottish Health Survey 2012 - Main Report* (pp. 240–287). Scottish Government, Edinburgh, UK.
- Welte, J. W., Barnes, G. M., Tidwell, M. O., & Hoffman, J. H. (2011). Gambling and problem gambling across the lifespan. *Journal of Gambling Studies*, 27(1), 49–61.

- Wong, I. L. K., & Lam, P. S. (2013). Work stress and problem gambling among Chinese casino employees in Macau. *Asian Journal of Gambling Issues and Public Health*, 3(1), 7.
- Youn, H., Lee, K., & Lee, S. (2018). Effects of corporate social responsibility on employees in the casino industry. *Tourism Management*, 68, 328–335.